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摘要:

磁黄铁矿固溶体从硫化物熔体结晶后，在缓慢冷却过程中经历了显著的退火。出治和出治体的粗化是固溶体斜磁黄铁矿和“火焰状”的镍黄铁矿原始出治相在降温过程中均可发生退火和粗化。分布于磁黄铁矿等矿物粒间磁铁矿，不只是高温出治的直接产物，有一部分可能是由火焰状出治体粗化而成的。磁黄铁矿中单斜变体的出治和镍黄铁矿出治体的粗化使含镍矿物的粒度加大。因而，退火作用对矿石的选矿工艺性能有着显著影响。

关键词：[镍铜硫化物矿石](#) [磁黄铁矿固溶体](#) [镍黄铁矿](#) [选矿工艺](#) [退火作用](#)

Annealing of Pyrrhotite Solid Solution in Nickel-copper Ores: Significance to Mineral
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Abstract:

Pyrrhotite solid solution, subsequent to crystallization from sulfide melt, will suffer strong cooling. Annealing is represented by both of the two processes, exsolution of the solid solution and exsolution products including lamellar, monoclinic pyrrhotite and flame-like pentlandite. Although the mechanism has been recognized as a major mechanism for the formation of granular pentlandite included or occurring along grain boundaries between pyrrhotite and other minerals, coarsening of flame-like by the present authors as another possible mechanism. Exsolution of monoclinic pyrrhotite and coarsening of lamellae will modify the magnetic property of pyrrhotite in ores, whereas coarsening of exsolved particles of this nickel-bearing mineral. As a result, annealing will have significant effect on the processing

Keywords: [pyrrhotite](#) [pentlandite](#) [solid solution](#) [exsolution](#) [annealing](#) [processing](#)

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